Chapter 4

Modifiable Risk Factors of Lifestyle Diseases

Modifiable Risk Factors of Lifestyle Diseases

Modifiable risk factors changes a person can make themselves to alter their risk or chance of developing or managing chronic illness

1. Smoking
2. Physical Activity
3. Diet
4. Hypertension
5. Diabetes

“Noncommunicable diseases (NCDs) are the top killers in the Philippines. Of the total deaths in 2008, 57% are due to the fatal four” NCDs, namely cardiovascular disease, cancer, diabetes, and chronic respiratory disease. It is estimated that 35 to 50 percent of NCD deaths occured before the age of 60. A significant proportion of Filipino adults continue to be exposed to the NCD risks of tobacco and alcohol use, unhealthy diet, and physical inactivity.”

- The World Health Organization- Western Pacific Region

Table of Contents

01 Noncommunicable Diseases (NCDs)

02 Smoking

03 Poor Dietary Habits

04 Sedentary Lifestyle

01

Noncommunicable Diseases (NCDs)

Noncommunicable Diseases (NCDs)

Non-infectious illnesses but can be inherited or developed based on the individual's lifestyle.

Familiar cases of noncommunicable diseases:

- Heart disease
- Cancer
- Liver cirrhosis
- Chronic Renal Failure
- Obesity
- Stroke
- Type 2 Diabetes

Noncommunicable Diseases (NCDs)

- These conditions develop gradually over the lifetime of the person.
- Pain and other symptoms usually manifest when the person is in their 40s or 50s.
- These choices and behavior that teenagers and young adults make sets the tone for whether they would develop these conditions later in life.
- **Lifestyle Diseases** – diseases that are developed due to an individual's usual routine, food intake, vices, or way of life

02

SMOKING

SMOKING

Why is smoking harmful?

- Almost every organ in the body is damaged when a person smokes.
- It weakens the body and leads to many diseases.
- Each stick of cigarette has more than 4,000 chemicals and consuming it would cut an individual’s life for at least five minutes.
- Others who are exposed to cigarette smoke are also at risk from its chemical effects.

SMOKE

Smoke contains:

- Hydrogen Cyanide
- Insecticides and Butane Fuels
- Benzene
- Cadmium
- Formaldehyde

Harmful Substances from Tobacco

Tar

It is a harmful byproduct of smoking cigarettes. This toxic substance is carcinogenic and accumulates inside the respiratory system. Tar build-up disrupts clearing process of the lungs and ruin air sacs.

Nicotine

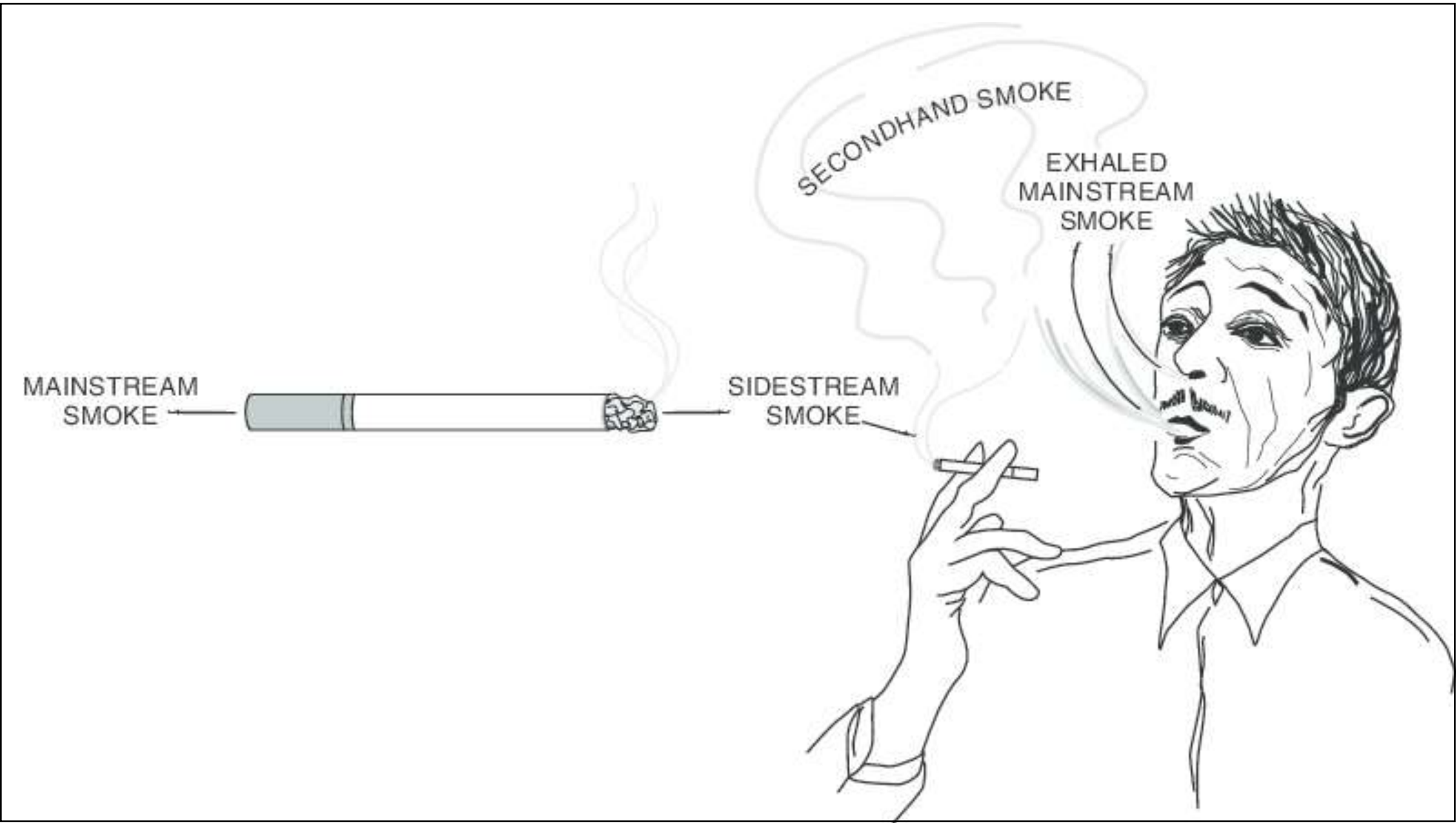
It is a toxic chemical compound that mostly consists of nitrogen, which also makes cigarettes addictive. It makes the heart beat fast, brings lightheadedness, and upsets stomach.

Carbon Monoxide

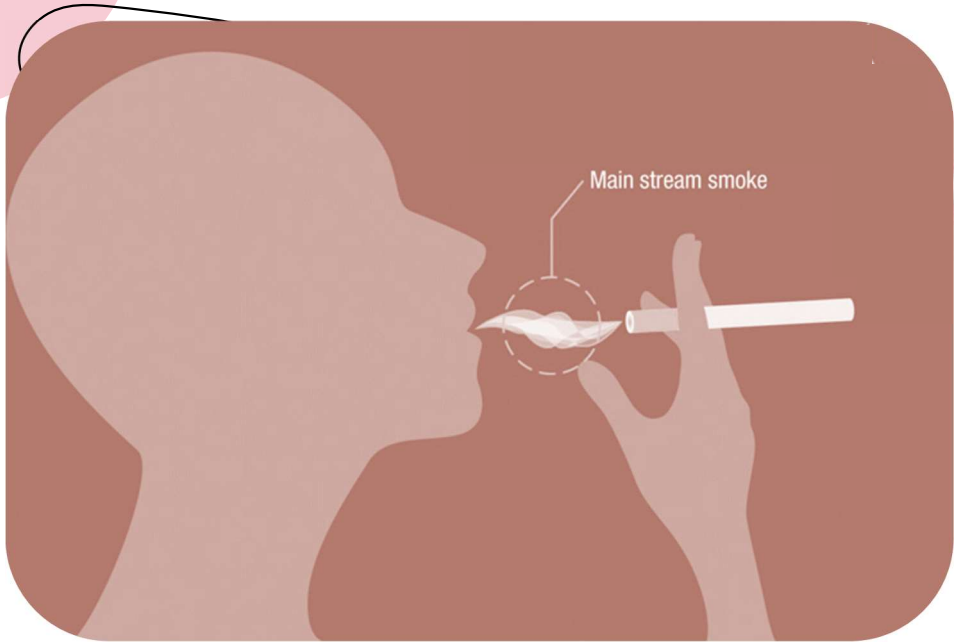
It is a poisonous chemical from burnt cigarette that makes the heart do more work to supply sufficient oxygen in the body. Thus smokers have a higher risks of having cardiovascular diseases like angina and heart attacks.

KINDS OF TOBACCO SMOKE

1. **Mainstream smoke**
2. **Second-hand smoke**
3. **Third-hand smoke**


SECONDHAND SMOKE
EXHALED MAINSTREAM SMOKE
MAINSTREAM SMOKE
SIDESTREAM SMOKE

Mainstream Smoke



Mainstream smoke, commonly known as “first-hand smoke” is the smoke from lit cigarettes that is both inhaled and exhaled.

Second-hand Smoke

Second-hand smoke is a very dangerous when taken in. It is smoke puffed out by smokers called environmental or “sidestream” smoke.

Third-hand Smoke

Third-hand smoke refers to cigarette offshoots which is attached to the smoker’s hair and clothing as well as various surfaces like walls, floors, furniture, chairs, and toys. This will remain in the environment even if the smoke is already gone.

Why do people start smoking?

A. Parental Role Model
B. Adolescent Experimentation and Rebellion
C. Depression
D. Limited Education
E. Weight Control
F. Aggressive Marketing
G. Stress
H. Addiction

Why do people keep smoking?

a) Pleasure

b) Fear of weight gain

c) Nicotine Dependence

d) Use of other substances (many smokers also use alcohol and drugs)

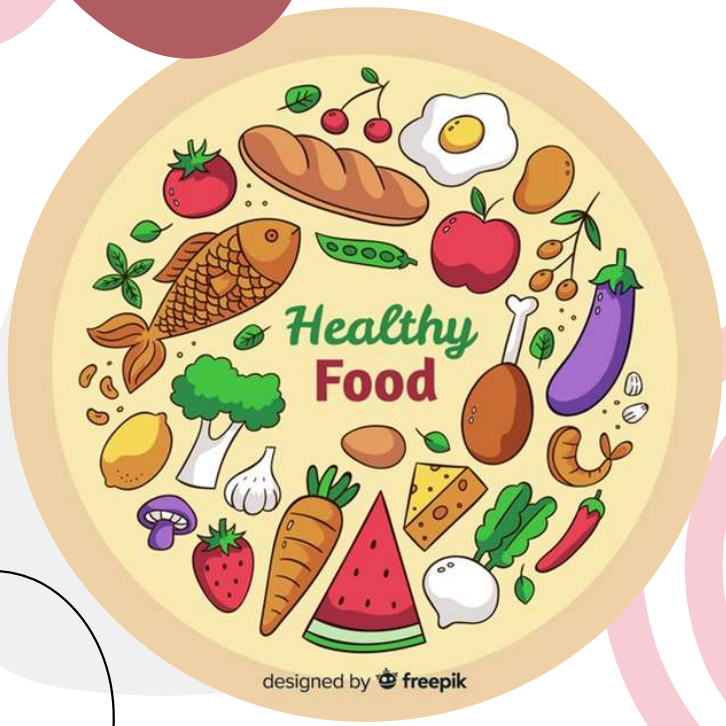
03

Poor Dietary Habits

How are healthy habits developed?

Dietary Habits

Dietary habits are the usual choice of food that people make. Diet affects an individual's health condition. For a person to grow and develop, he/she needs a healthy and balanced diet that provides energy for everyday activities. Having a healthy and balanced diet early reduces the chance of developing diseases like cancer, osteoporosis, and diabetes in the future.



What is a poor dietary habit?

Poor Dietary Habit

- Occurs when the person does not follow the principles of good nutrition adequacy, balance, and variety.
  - **Adequacy** – refers to moderate amounts of nutrients to maintain normal body function.
  - **Balance** – refers to correct combination of nutrients
  - **Variety –** refers to consumption of different types of food products.

Poor Dietary Habit

- It is about not eating enough healthy food. Underconsumption and overconsumption of unhealthy food and drinks and intake of low-fiber, high-fat, high-salt, and high-sugar food are all part of poor dietary habits that affect the amount of essential nutrients in the body such as vitamins, minerals, protein, fiber, as well as fluid.

Poor Dietary Habit

- Poor dietary habit leads to malnutrition, resulting to stress, tiredness, sleep deprivation, weak brain functions, indigestion, and heart problems.
- It add ups to the risk of developing diseases and health problems such as:
  - Obesity
  - Tooth decay
  - High blood pressure
  - High cholesterol
  - Heart disease and stroke
  - Type-2 diabetes
  - Osteoporosis
  - Certain types of cancer
  - Depression
  - Eating disorders

Poor Dietary Habit

- Starting a healthy eating habit begins with knowing what you eat. Eating should be planned. This includes evaluation of the food intake whether it provides sufficient nutrients or is harmful to your body.

- Eating only for the reason to be “in” with peers is unhealthy. Eating to overcome the feeling of rejection, depression, or anxiety is unhealthy as well. Eating to cope with feelings may be detrimal and lead to eating disorders.

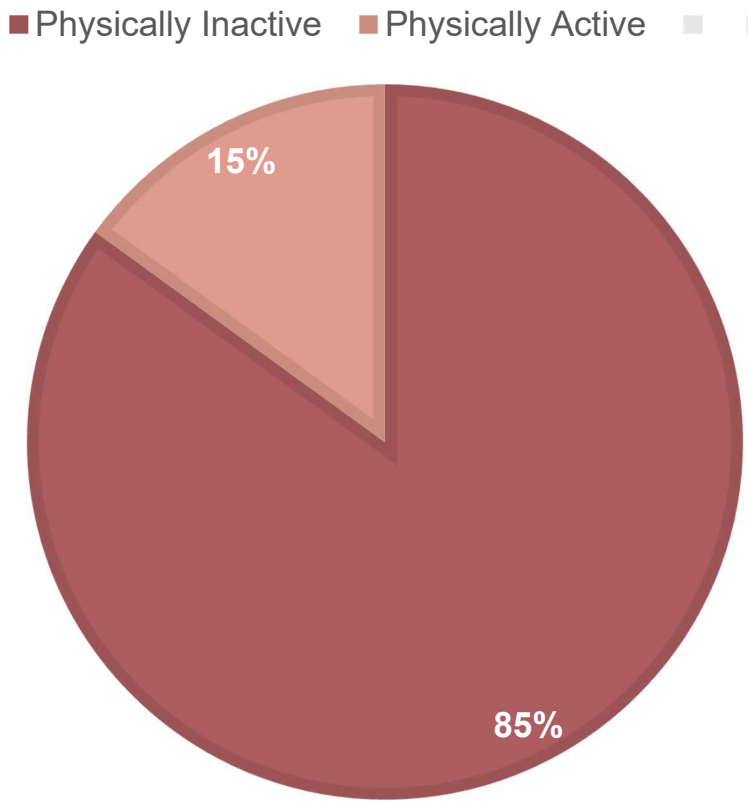
04

Sedentary Lifestyle

Sedentary Lifestyle

- A type of lifestyle involving little or no physical activity.
- Occurs when an individual lacks the recommended level of regular physical activity for every age group.

PERCENTAGE OF PHYSICAL ACTIVE AND INACTIVITY OF FILIPINOS



Effects of Physical Inactivity

- Increase risks of certain cancers
- Contribute to anxiety and depression
- Risk factor to certain cardiovascular diseases
- Increase risks of having a coronary heart disease and obesity
- Decrease in skeletal muscle mass due to excessive sitting
- High blood pressure and increased cholesterol levels

Types Of Diseases Associated With Unhealthy Lifestyle

A. **Cardiovascular Disease –** a disease of the heart and blood vessels and is the leading cause of death in the Philippines.

Types of Cardiovascular Diseases

1. **Arteriosclerosis –** a condition causing arteries to harden and thicken. Some types are natural to growing old.
2. **Atherosclerosis** – types of arteriosclerosis where deposited fat hardens and becomes plaque or arterial walls. Plaque build-up can begin as early as two years old.
3. **Coronary heart disease** – coronary arteries (pahway of blood to the heart muscles) are narrowed or blocked; a disease of the coronary vessels and not the heart.

Types of Cardiovascular Diseases

4. **Heart attack** – cardiac muscle failure due to lack of blood flow to the heart. Signs include painful pressure in the center of the chest spreading to the shoulders, neck, and jaw, lightheadedness, sweating, nausea, and shortness of breath.
5. **Angina Pectoris** – chest pain from narrowed coronary arteries due to inadequate oxygen for the heart. Angina attack usually lasts less than five minutes.
6. **Rheumatic Fever** – the immune system attacks the heart and can cause fever, weakness, and damage to its valves. It Is common among teens and results in permanent damage.

Types of Cardiovascular Diseases

7. **Heart Rhythm Abnormalities/ Arrhythmia** – irregular heart rhythm (i.e bradycardia, tachycardia, palpitation) brought about by a faulty electrical conduction system that is worsened by uncontrolled stress levels and high caffeine intake.
8. **Congestive Heart Failure** – the heart is not able or below its normal capacity to pump blood, causing the liquid to accumulate in the lungs and other areas of the body. Reducing salt and salty foods helps manage this condition.

Types Of Diseases Associated With Unhealthy Lifestyle

B. Cancer – a disease where cells divide at an uncontrolled pace. These cells can form tumors, which can be identified as benign or malignant through a biopsy procedure.

- Cancer is **not contagious** or caused by injuries or accidents. One of the risk factors associated with cancer is an unhealthy lifestyle.

Most common types of cancer:

- Breast cancer
- Prostate cancer
- Colon cancer

Four major categories of cancer:

1. **Carcinoma** – the most common of the major categories. An invasive malignant tumor from epithelial tissue tends to spread to other body parts.

   Examples:

   - Skin cancer
   - Breast cancer
   - Prostate cancer
   - Lung cancer
   - Stomach cancer
   - Colon cancer
   - Rectum cancer

Four major categories of cancer:

2. **Sarcoma** – connective or supportive cancer, which includes muscle, bone, fat, blood vessels, and cartilage cancers.
3. **Lymphoma** – arises in cells of the lymphatic or the immune system tissues characterized by abnormal production f white cells and decrease in resistance.
4. **Leukemia** – is the cancer of the blood or bone marrow characterized by an abnormal production of blood cells, usually leukocytes or white blood cells.

Types Of Diseases Associated With Unhealthy Lifestyle

C. **Diabetes or Diabetes Mellitus –** disease resulting from a condition of the body wherein the body is not able to produce or effectively use insulin.

Insulin – a hormone that is produced in the pancreas, which regulates the utilization of glucose.

Diabetes impairs several organs in the body which causes:

1. Kidney damage
2. Blindness
3. Atherosclerosis

There is no cure for diabetes

Types of Diabetes

1. **Type 1 Diabetes –** is insulin-reliant diabetes because the body produces little or no insulin at all.
    - This type of diabetes relies on daily insulin injections and follows a special diet.
    - It usually occurs in children and young adults.

    Symptoms:

    - Increased thirst
    - Frequent urination
    - Continuous hunger
    - Blurred vision
    - Tiredness
    - Weight loss

Types of Diabetes

1. **Type 2 Diabetes –** is non-insulin dependent.
    - This type of diabetes is manageable through oral medication and a lifestyle based on diet and exercise programs.
    - Symptoms are usually not very obvious and may go undetected for many years.
2. **Gestational Diabetes –** occurs in certain pregnant individuals.
    - The hormones cause the body not to respond to the insulin produced by the body not to respond to the insulin produced by the body.
    - This is not harmful to the baby and can be treated only with a proper diet.
    - It usually regresses after childbirth but has higher chances of developing into Type 2 diabetes.

Types Of Diseases Associated With Unhealthy Lifestyle

D. **Chronic Respiratory Disease –** commonly called chronic obstructive pulmonary disease (COPD); occurs in the air paths and other parts of the lungs.

Symptoms:

Breathlessness, chronic cough, excessive mucus production

Major risk factors of COPD include:

- Tobacco smoking
- Indoor air pollution
- Outdoor air pollution
- Occupational dusts and chemicals like vapors, irritants, fumes

"Health is wealth."

Healthy Lifestyle

A healthy lifestyle is all about making one’s health and well-being a priority. It is a choice made by an individual, a commitment made for his own good and that of his loved ones.

Ways to Prevent Lifestyle Diseases

Healthy living habits:

- Eat healthy food
- Do daily routines or physical activity.
- Do not smoke.
- Drink moderate amounts of alcohol only.
- Manage stress.

Ways to change your thinking to become successful in achieving a healthy body:

- Stop comparing yourself to others.
- Awareness of how hungry or full you are.
- It’s not about the diet; it’s more about the routine
- Be determined that you’re going to improve your health.